Questions and Answers Regarding the CMRR Project

1. CMRR Mission

Q: *The Reliable Replacement Warhead (RRW) Program is very uncertain. There is a bi-partisan nuclear weapons policy commission report due December 2008. There is also a new Nuclear Posture Review due during the next administration. Why start construction of the Chemistry Metallurgy Research Replacement –Nuclear Facility (CMRR-NF) until these items are settled?*

A: The CMRR facility is being designed as a replacement capability for activities contained within the aged Chemistry Metallurgy Research (CMR) facility. CMRR will provide the safe, secure, and modern infrastructure necessary to support the existing stockpile mission at LANL for the next 50 years. The need for CMRR to replace CMR has been supported by Congress.

Q: *If the new administration or Congress decided that the United States would produce no new nuclear weapons, what would be the purpose of the CMRR and what size facility would be needed?*

A: The primary mission of CMRR will be to support the current nuclear weapons stockpile through surveillance and life-extension programs necessary for the nuclear weapons complex. The size of CMRR remains the same.

- CMRR will provide analytical chemistry and material characterization (AC/MC) capability for Los Alamos National Laboratory (LANL). Many programs at LANL rely on this support. The analytical chemistry services provided by CMR/CMRR are necessary for the existing stockpile and a number of other programs that are related to or go beyond supporting the stockpile, such as providing AC/MC chemistry for waste management programs.

Q: *Costs for CMRR have risen from $600M in 2004 to "over $2,000,000,000". Why?*

A: Since the establishment of the preliminary cost range based on conceptual design, several major changes have occurred that have fundamentally affected the basis of the cost estimate for the remaining scope of the NF and associated Special Facility Equipment. Early cost figures utilized by CMRR were based on very limited nuclear industry construction experience of similar type facilities. Cost increases in the construction industry worldwide are significant due to higher costs for construction materials. Original cost range estimates applied escalation factors which were required by the Department. These factors underestimated price increases experienced by the construction industry over the last several years. In addition, the project now has much better definition on design requirements for seismic ground motion, nuclear quality assurance, and security.

Q: *What is the current earliest date estimated to complete CMRR NF? The Total Estimated Cost for CMRR has a placeholder going to 2017.*

A: The earliest date is dependent on many factors, and the placeholder date specified would be consistent with an estimated range. A defined date will be established after the baseline for CMRR NF is approved. The baseline will be approved after further design definition is available.

Q: *Other Project Costs, or OPC -,What specifically are these costs? Please provide a breakdown.*

A: OPCs are costs associated with the project that cannot be capitalized. For the Radiological Laboratory/ Utility/Office Building (RLUOB) and for the Nuclear Facility (NF), these would be costs such as pre-conceptual costs, activation and startup, NEPA, and permitting.

Q: *Phase 2 (formerly "Phase C") CMRR Nuclear Facility (NF): Construction of a facility located behind perimeter security protective systems of approximately 22,500 net square feet to house Hazard Category II nuclear laboratory space for AC/MC, and actinide research & development operations. Additionally, this facility will include SNM storage and a large-vessel handling capability.*

We believe that CMRR-NF was closer to 200,000 square feet. Is this a typo? What is the total square footage of CMRR-NF?

A: The 22,500 number is for net laboratory space only within the NF. NNSA has carefully reviewed the overall laboratory footprint and has found that it is not excessive and is judicious for the assigned mission scope. The gross nuclear facility space is still being evaluated but will include the SNM storage and vessel space noted and also hallways, restrooms, change-out rooms, mechanical equipment, safety component space, etc. Much of the gross square footage will be directly associated with the building structure, fire safety, and ventilation systems.

Q: *Is CMRR still being designed to handle large vessels? Does its mission still include clean out of large vessels? If so, have there been changes?*

A: The NF is being designed to have the ability to handle large vessels.

Q: *Is any work with Pu-238 still planned?*

A: No PU-238 program work is currently being planned for the CMRR.

2. Defense Nuclear Facilities Safety Board (DNFSB) Concerns

Q: *Los Alamos National Laboratory, Chemistry and Metallurgy Research Replacement Project. In the Defense Nuclear Facilities Safety Board's (DNFSB) first quarterly report dated February 15, 2007, the DNFSB noted its concern regarding the need to establish conservative design criteria for several of this project's safety-related systems structure, for example, ventilation, fire suppression, and nuclear material container design. Further, the safety basis documents had deficiencies that made it impractical for the DNFSB to assess the overall approach for selecting safety-related systems and the establishment of conservative design criteria for those systems. Since the last quarterly report, DOE and its contractor have been revising the safety basis documents; drafts of the revised documents are now being reviewed by the National Nuclear Security Administration's Los Alamos Site Office, Los Alamos National Laboratory, and the DNFSB. These and other documents needed by the DNFSB to evaluate the preliminary design should be available in early 2008. At the end of the preliminary design stage, the DNFSB will undertake a detailed review of the project's overall safety strategy, as well as assess the adequacy of the design criteria and the design of the safety-related systems.*

- *Is the ventilation system designed to be active or passive? Is it safety-significant (SS)?*

A: The NF system is actively ventilated and categorized as SS.

- *Is the fire suppression system designed to be safety-significant?*

A: The fire suppression system is categorized as safety class (SC), which is a higher standard than SS. It addresses protection of the public from building hazards while SS addresses worker protection. The standards for protecting the public are more stringent than standards for worker protection.

- *Is lightning protection system safety class or safety significant?*

A: The lightning protection system is designated as Important to Safety (ITS).

3. Air Permits

Q: *What is the current schedule for DOE/LANL to submit an application to the New Mexico Environment Department (NMED) for a construction air permit for the NF?*

A: The NF application for the NMED permit will be a modification to the existing CMRR non-radiological air permit in effect for RLUOB. Potentially, that modification will be submitted in 2010. The available budget and maturity of the NF design will be primary factors that will drive project activities and schedules including permitting.

Q: *What is schedule for non-rad Title V air permit application?*

A: LANL has had a Title V operating permit for the site since April 2004. Eventually, the permit for the CMRR facilities will be incorporated into LANL's operating permit. LANL has one year, from the start of operation of a new radiation source, to modify the Title V permit. This requirement applies to both RLUOB and NF.